

## REMARKS

Favorable reconsideration of this application, in light of the following discussion and in view of the present amendment, is respectfully requested.

Claims 49-53 and 55 are amended for non-substantive grammatical reasons. Claims 47 and 48 are amended. Claims 1-58 are pending.

### Entry of Amendment under 37 C.F.R. § 1.116

The Applicant requests entry of this Rule 116 Response because: the amendments were not earlier presented because the Applicant believed in good faith that the cited references did not disclose the present invention as previously claimed; and the amendment does not significantly alter the scope of the claim and places the application at least into a better form for purposes of appeal.

The Manual of Patent Examining Procedures (M.P.E.P.) sets forth in Section 714.12 that "any amendment that would place the case either in condition for allowance or in better form for appeal may be entered." Moreover, Section 714.13 sets forth that "the Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified." The M.P.E.P. further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

### **I. Rejection under 35 U.S.C. § 102**

In the Office Action, at page 2, numbered paragraph 4, claims 1-3, 6-8, 11-12, 17-19, 24-25, 29-30, 32-33, 38-49, 53-54, 56-58 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application No. 2005/0179822 to Takano et al. This rejection is respectfully traversed because Takano does not discuss or suggest:

a signal checking unit that checks whether the identified input signal is abnormal; and

a signal changing unit that switches from the checked input signal to a next input signal to be checked based on set data corresponding to the identified type of the input signal so that the signal checking unit checks whether the next input signal is abnormal, if the identified input signal is determined to be abnormal,

as recited in independent claim 1.

Further, Takano does not discuss or suggest:

checking whether the identified input signal is abnormal; and  
switching from the checked input signal to a next input signal to be checked based on set data corresponding to the identified type of the input signal so that whether the next input signal is abnormal is checked, if the input signal is checked and is determined to be abnormal,

as recited in independent claim 6.

In addition Takano does not discuss or suggest:

a signal checking unit checking whether the identified input signal is abnormal or normal; and

a signal changing unit switching from the checked input signal to check a next input signal based on set data corresponding to the identified type of the input signal so that the signal checking unit checks whether the next input signal is abnormal;

wherein if the checked input signal is normal, the signal continues being displayed by the display device and if the checked input signal is abnormal, the signal stops being displayed by the display device,

as recited in independent claim 11.

Also, Takano does not discuss or suggest:

checking whether the received and identified input signal is abnormal or normal; and

switching from the checked input signal to a next received and identified input signal based on set data corresponding to the identified type of the input signal to check whether the next received and identified input signal is abnormal;

wherein if the checked input signal is normal, the signal continues being displayed by the display device and if the checked input signal is abnormal, the signal stops being displayed by the display device,

as recited in independent claim 25.

Additionally, Takano does not discuss or suggest:

a signal checking unit for checking whether the selected input port is receiving a normal input signal; and

an input port changing unit for switching from the checked input port to a next input port when the input port is not receiving a normal input signal, wherein at least one of the input ports has priority in an order of checking by the signal checking unit as compared to another input port.

as recited in independent claim 40.

Takano further does not discuss or suggest:

an input port changing unit for switching from the analog input port to the digital input port when the displaying device determines that the analog input port is not receiving a normal analog input signal, as recited in independent claim 47.

Takano also does not discuss or suggest:

an input port changing unit for switching from the digital input port to the analog input port when the displaying device determines that the digital input port is not receiving a normal digital input signal, as recited in independent claim 48.

Takano also does not discuss or suggest:

checking whether the selected input port is receiving a normal input signal; and  
switching from the checked input port to a next input port to be checked when a normal input signal is not being received from the selected input port, wherein at least one of the input ports has priority in an order of checking by the signal checking unit as compared to another input port, as recited in independent claim 49.

As a non-limiting example, the present invention according to claim 1, for example, is directed to a display device in which a signal checking unit checks whether an identified input signal is abnormal and a signal changing unit switches from the checked input signal to a next input signal to be checked based on set data corresponding to the identified type of the input signal so that the signal checking unit checks whether the next input signal is abnormal, if the identified input signal is determined to be abnormal. The present invention according to claim 1, for example, switches to a next input signal to be checked based on data which is set corresponding to an identified type of input signal, and the signal is switched to a next input signal to be checked based on that set data. For example, the user may designate data on the number of times signals input from a TV, etc. are to be checked, the time required to check the signals, the order of checking the signals, etc.

First, Takano does not discuss or suggest a signal checking unit that checks whether an identified input signal is abnormal. The Examiner cites user interface 235 in alleging that Takano discusses a signal checking unit that checks whether the identified input signal is abnormal. However, in Takano, screen 500 includes a window 505 displaying video derived from whichever analog input channel is selected by video selection circuit 230. Screen 500

prompts the viewer to select either a "yes" icon or a "no" icon, depending upon whether window 505 displays the appropriate analog signal. If the answer is "yes", then interface 315 fills in the field of lookup table 312 associated with the selected analog video input to map the GUID of the selected device to the appropriate analog plug ID, and if the answer to the decision is "no", interface 315 determines whether there are additional analog input channels left to try and interface 315 switches video selection circuit 230 to the next available analog input channel if there are.

However, Takano does not discuss or suggest the use of a physical signal checking unit that checks the abnormality of an identified input signal. A user selecting either a "yes" icon or a "no" icon depending upon whether window 505 displays the appropriate analog signal is not a physical signal checking unit which is part of a display device. The "signal checking unit" cited by the Examiner in this case is a user, which cannot be considered to be a unit of a display device. Further, Takano includes no unit that specifically checks the abnormality of an input signal because allowing a user to check whether the window displays an appropriate analog signal is not a checking unit that checks whether an identified input signal is abnormal.

In addition, Takano does not discuss or suggest a signal changing unit that switches from the checked input signal to a next input signal to be checked based on set data corresponding to the identified type of the input signal. Takano discusses that interface 315 switches video selection circuit 230 to a next available analog input channel after the user determines whether the window 505 displays the appropriate analog signal. However, Takano does not suggest that the interface 315 switches to a next input signal to be checked based on set data corresponding to an identified type of the input signal.

Takano includes no discussion of basing the switching from one input signal to another input signal on data that corresponds with the identified type of the input signal. Takano merely discusses identifying the set-top box 310 and the digital VCR 315 with identifiers GUID1 and GUID2, but does not discuss or suggest that data is set which corresponds to an identified type of input signal and does not suggest that the interface 315 switches to a next available analog input channel based on data set which corresponds to an identified type of input signal.

In contrast, the present invention of claim 4, for example, discusses that the set data is one of a number of times the identified input signal is checked, a time required to check the identified input signal, and a position of the identified input signal to be checked within a sequence of identified input signals to be checked. Thus, the present invention of claim 1, for example, uses the set data of the number of times, the time required to check, and/or the

position of the input signal to switch the checked input signal to a next input signal to be checked, where the data is set which corresponds to the type of input signal which is identified by the signal identifying unit.

In addition, as to independent claim 49, in a manner similar to that described above with respect to the signal being switched to a next input signal based on set data corresponding an identified type of the input signal, Takano does not discuss or suggest that an input port for receiving an input signal has priority in an order of checking by a signal checking unit as compared to another input port.

Claims 6, 11, 25, 40, and 49 also include the feature of the switching to a next input signal being based on set data corresponding to an identified type of the input signal, and therefore patentably distinguish over Takano for reasons similar to those discussed above. In addition, as to independent claims 11 and 25, Takano does not suggest that if the checked input signal is normal the signal continues being displayed by the display device and if the checked input signal is abnormal the signal stops being displayed by the display device. Takano merely discusses that if the viewer selects a "yes" icon as to whether window 505 is displaying an appropriate analog signal, interface 315 fills in a field of lookup table 312 associated with the selected analog video input to map the GUID of the selected device to the appropriate analog plug ID. Takano does not suggest that if the viewer selects a "yes" icon indicating that the window 505 is displaying the appropriate analog signal that the signal continues being displayed by the window 505. Takano only discusses that the interface 315 fills in the field of look up table 312 if the viewer selects the "yes" icon.

As to independent claims 47 and 48, Takano does not discuss or suggest an input port changing unit that switches from either an analog input port to a digital input port or a digital input port to an analog input port when the analog input port is not receiving a normal analog signal or the digital input port is not receiving a normal digital input signal. Takano discusses only that a DTV 105 includes a display 125, a digital interface 130, and a switch 135, where interface 130 controls switch 135 to select between digital channel 115 and analog channel 120. Takano further discusses that a DVCR 110 includes a panel subunit 140 and a VCR subunit 145, in which the panel subunit 140 communicates with the digital interface 130 and VCR subunit 145 provides digital signals to DTV 105 via panel subunit 140 and digital channel 115, and provides an analog signal to DTV 105 via analog channel 120. Takano further discusses that in the absence of an intelligent interface, the user of system 100 would have to know at any

given moment whether the output of the DVCR 110 was an analog signal or a digital signal, and the user would then have to instruct DTV 105 to select the appropriate analog or digital input.

However, Takano includes no discussion of that which was set forth by the Examiner, namely, that if a digital video is placed in the DVCR 110 and an analog input channel is selected, then a "normal" analog input signal would not be received and that when nothing is displayed after the user presses "play" then the user will switch to the digital channel, meaning that the switching unit 135 will switch based on the signal from digital interface 130 when the analog channel is not receiving a "normal" signal. Takano includes no discussion of a video being placed in DVCR 110 and then an analog input channel being selected. Takano discusses only that a user would have to instruct DTV 105 to select an appropriate analog or digital input based on whether the output of the DVCR 110 was an analog or digital signal. Takano does not discuss or suggest that the DTV 105 includes an input port changing unit that switches from an analog input port to a digital input port when the DTV 105 determines that the analog input port is not receiving a normal analog input signal or switches from the digital input port to the analog input port when the DTV 105 determines that the digital input port is not receiving normal digital input signal.

Specifically, Takano discusses that the DVCR 110 issues a "CONNECT" command over digital channel 115 to instruct digital interface 130 to issue an appropriate video-select command on port VS to switch 135 between analog channel 120 and digital channel 115, but it is not the DTV 105 that determines that an analog input port is not receiving a normal analog input signal or that a digital input port is not receiving a normal digital input signal. DTV 105 merely receives a connect command from the DVCR 110 based on whether the output of the DVCR 110 was an analog signal or a digital signal. Once the "CONNECT" command is issued by the DVCR 110, and received by the digital interface 130, the DTV 105 switches from the analog channel 120 to the digital channel 115. The DTV 105, however, is not determining that an analog or digital video port is not receiving a normal respective analog or digital input signal. Thus, Takano is not suggestive of a displaying device determining that the digital or analog input port is not receiving a normal digital or analog signal, respectively. Takano discusses that the "CONNECT" command comes from the DVCR 110, which is not interpreted by the Examiner to correspond to the displaying device of the present invention of claim 47, for example. The DTV 105 is not determining that the digital interface 130 or the analog interface is not receiving a normal digital signal or a normal analog signal, respectively, and that the DTV 105 includes an input port changing unit that switches from a digital or analog input port when the DTV 105 determines that the digital or analog input port is not receiving a normal digital or analog signal, respectively.

Therefore, Takano does not discuss or suggest, "a signal changing unit that switches from the checked input signal to a next input signal to be checked based on set data corresponding to the identified type of the input signal so that the signal checking unit checks whether the next input signal is abnormal," as recited in independent claim 1, Takano does not discuss or suggest, "switching from the checked input signal to a next input signal to be checked based on set data corresponding to the identified type of the input signal so that whether the next input signal is abnormal is checked," as recited in independent claim 6, Takano does not discuss or suggest, "an input port changing unit for switching from the checked input port to a next input port when the input port is not receiving a normal input signal, wherein at least one of the input ports has priority in an order of checking by the signal checking unit as compared to another input port," as recited in independent claim 40, and Takano does not discuss or suggest, "switching from the checked input port to a next input port to be checked when a normal input signal is not being received from the selected input port, wherein at least one of the input ports has priority in an order of checking by the signal checking unit as compared to another input port," as recited in independent claim 49.

Further, Takano does not discuss or suggest, "a signal changing unit switching from the checked input signal to check a next input signal based on set data corresponding to the identified type of the input signal so that the signal checking unit checks whether the next input signal is abnormal; wherein if the checked input signal is normal, the signal continues being displayed by the display device and if the checked input signal is abnormal, the signal stops being displayed by the display device," as recited in independent claim 11, and Takano does not discuss or suggest, "switching from the checked input signal to a next received and identified input signal based on set data corresponding to the identified type of the input signal to check whether the next received and identified input signal is abnormal; wherein if the checked input signal is normal, the signal continues being displayed by the display device and if the checked input signal is abnormal, the signal stops being displayed by the display device," as recited in independent claim 25.

Additionally, Takano does not discuss or suggest, "an input port changing unit for switching from the analog input port to the digital input port when the displaying device determines that the analog input port is not receiving a normal analog input signal," as recited in amended independent claim 47, and Takano does not discuss or suggest, "an input port changing unit for switching from the digital input port to the analog input port when the displaying device determines that the digital input port is not receiving a normal digital input signal," as recited in amended independent claim 48.

Thus, independent claims 1, 6, 11, 25, 40, 47, 48 and 49 patentably distinguish over the reference relied upon. Accordingly, withdrawal of the § 102(e) rejection is respectfully requested.

Claims 2, 3, 7, 8, 12, 17-19, 24, 29, 30, 32, 33, 38, 39, 41-46, 53, 54 and 56-58 depend either directly or indirectly from independent claims 1, 6, 11, 25, 40, 47, 48 and 49 and include all the features of their respective independent claims, plus additional features that are not discussed or suggested by the reference relied upon. For example, claim 3 recites that "the signal checking unit checks whether the identified input signal is abnormal by one of decoding the identified input signal and sensing whether an input signal cable is connected to the display device." Therefore, claims 2, 3, 7, 8, 12, 17-19, 24, 29, 30, 32, 33, 38, 39, 41-46, 53, 54 and 56-58 patentably distinguish over the reference relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 102(e) rejection is respectfully requested.

## **II. Rejections under 35 U.S.C. § 103**

In the Office Action, at page 11, numbered paragraph 7, claims 14-16, 26-28 and 50-52 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Takano. This rejection is respectfully traversed.

As discussed above with respect to independent claims 11, 25 and 49, Takano does not discuss or suggest all the features of independent claims 11, 25 and 49. Claims 14-16, 26-28, 50-52 depend either directly or indirectly from independent claims 11, 25 and 49 and include all the features of their respective independent claims, plus additional features that are not discussed or suggested by the reference relied upon. For example, claim 14 recites that "the signal identifying unit identifies whether the received input signal is a D-sub analog signal." Therefore, claims 14-16, 26-28, 50-52 patentably distinguish over the reference relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

In the Office Action, at page 13, numbered paragraph 8, claims 4, 5, 9, 10, 13, 20-23, 31, 34-37 and 55 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Takano in view of U.S. Patent No. 5,808,693 to Yamashita et al. This rejection is respectfully traversed.

As discussed above with respect to independent claims 1, 6, 11, 25 and 49, Takano does not discuss or suggest all the features of independent claims 1, 6, 11, 25 and 49. Yamashita fails to make up for the deficiencies in Takano. Therefore, claims 1, 6, 11, 25 and 49 patentably distinguish over the references relied upon. Claims 4, 5, 9, 10, 13, 20-23, 31, 34-37 and 55 depend either directly or indirectly from independent claims 1, 6, 11, 25 and 49 and



include all the features of their respective independent claims, plus additional features that are not discussed or suggested by the references relied upon. For example, claim 4 recites "a data setting unit that sets one of a number of times the identified input signal is checked, a time required to check the identified input signal, and a position of the identified input signal to be checked within a sequence of identified input signals to be checked, wherein if the signal checking unit has not checked one of the number of set times whether the identified input signal is abnormal and has not checked for the period of set time whether the identified input signal is abnormal, the signal checking unit continues checking whether the identified input signal is abnormal." Therefore, claims 4, 5, 9, 10, 13, 20-23, 31, 34-37 and 55 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

### Conclusion

In accordance with the foregoing, claims 47-53 and 55 have been amended. Claims 1-58 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: \_\_\_\_\_

6/4/07

By: \_\_\_\_\_



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